The MAC Flyer

NOVEMBER 1974

Survival May Depend on 'The Fine Print.' Page 3.

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For Greater Efficiency
in MAC Air Operations

NOVEMBER 1974 MAC RP 127-5 VOL XXI, NO. 11

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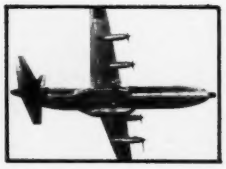

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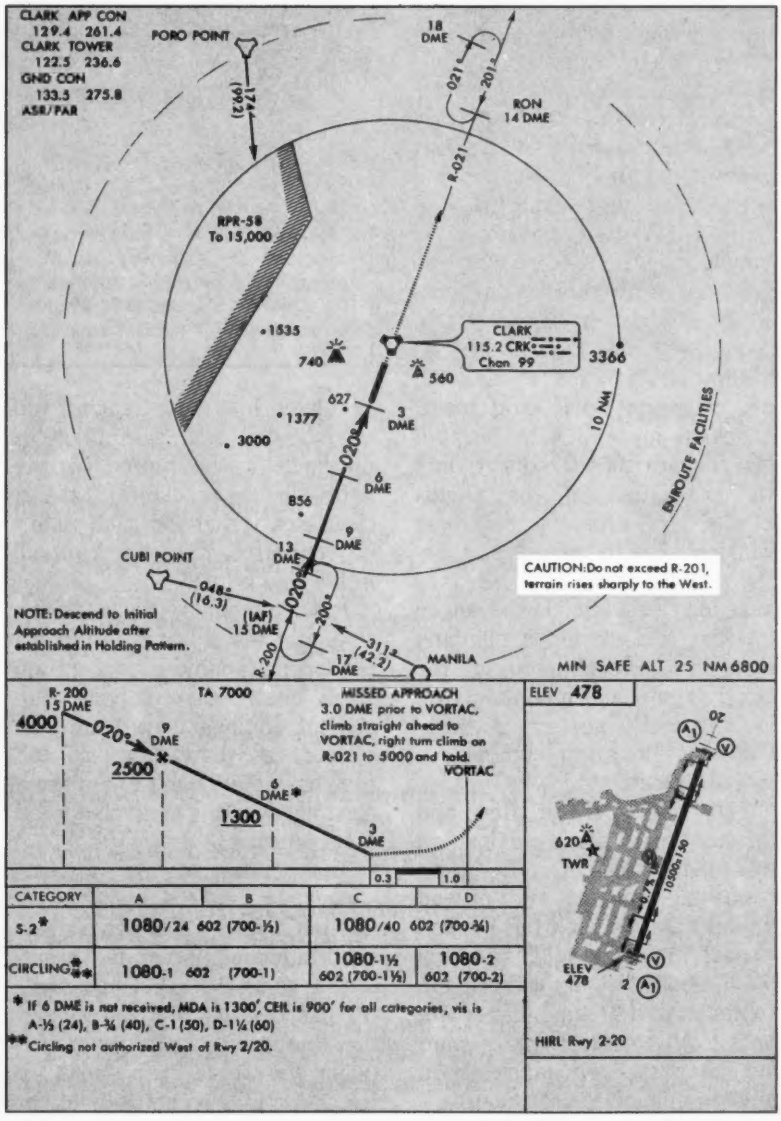
Honorable Mention Winner 1974 Writing Contest

Use all the information printed on the instrument approach plate or stand by for the surprise of your life.

by Capt Jack D. Lodato
301 MAS (Assoc)
Travis AFB, Calif.

The Fine Print



The mission began well enough, with an on-time takeoff at Andersen and the quaintly comforting feeling of having signed nonavailability forms in the crew's pockets. We climbed to altitude and cruised on top of cirrus while I attempted to field the IP's questions with a studied calm.

The weather picture for Clark was dismal but I was anxious to strut some stuff anyway as a green C-5A aircraft commander candidate on a line training mission. My concern was not so much the intricacies of an approach in weather as with the comfort of our 60 passengers in the troop compartment. The descent into Clark would be bumpy, with thunderstorms dotting the Luzon horizon.

The winds dictated a runway 02 approach and I briefed a precision radar approach with a VOR-TAC backup. We departed FL 280 at 90 miles out, letting down into the heavy clouds and seeing ice cream scoop puffs of cumulonimbus punching through in the distance. The air soon became turbulent but the navigator had a good radar set and jockeyed us around the worst buildups.

With the descent checklist just completed, the number two hydraulic system indicated an overpressure followed by a pump depressurized light. It was a wierd malfunction, new to all of us, but we agreed that the safest thing was to shut down the engine per

the tech order. We felt we could restart the engine if we had to, and even kept a checklist open to the "airstart" page just to be ready.

The descent smoothed below 15,000 feet, and I felt we had a good handle on things. All required checklists were out of the way by the time they handed us over to Clark Approach. The GI controller's voice had a further soothing effect on our rattled nerves, exuding competence as he acknowledged our three engine emergency configuration. The situation was beginning to look easy and I indulged myself in an instant's pride. The emergency would look good in my training folder.

The radar controller vectored us around two big storms to the east, then turned us west onto an extended base. The VORTAC was tuned and we were set for the backup approach, though the ceiling was below VOR minimums. On dogleg to final, number one fire warning light flickered twice, then remained illuminated. The loadmaster in the aft troop compartment reported occasional flames licking aft of number one engine. I directed the IP and the extra pilot in the jump seat to airstart number two before I shut down number one. Then the jump seat pilot radioed the operations center and got into a big discussion with the new duty controller. Still 15 miles out, we descended to 1,600 feet and were in good shape for the approach when the UHF radio picked up a warbling jamming tone that I recognized from a block training session a few weeks prior. Recalling an earlier jamming report from Clark about a month earlier, I assumed it was the "Huks" on station again. Our composure slipped considerably but we were able to pick up another controller on our briefed-and-set VHF backup frequency. He held us steady on course, then turned us slightly south to avoid another big thunderstorm. The pilot in the jump seat was talking with the ops center, and the IP was arguing with the engineer about the position of the nose wheel steering switch as we flew through the final approach course. The controller vectored us westbound "to avoid weather," then turned us northwest. I saw the IP adjusting his course-set knob and cross-checking my HSI with his, but his concern didn't register until we broke out of the clouds briefly and I saw a few fires winking directly ahead and below. My instincts told me they were too close. I quickly advanced throttles and started a climbing right turn. Breaking out of the clouds again, the mountain rose in silhouette against a background of towering cumulus — directly ahead.

The left wing hit first and twisted the airplane against all the control forces. The right wing exploded as we plowed through the trees on the jungled slopes. "What the hell," cried the IP. He looked at me with all the contempt of a lifetime just before we hit. All I could think of were the 60 passengers who'd been unlucky enough to get aboard.

There was a bright flash as the simulator instructor reached up behind me and said, "You've crashed," as he turned up the lights in the cockpit. "Take a close look at that approach plate," he continued. "See the 'caution' in the fine print?"

I'd been had — by a skilled simulator instructor pressing me beyond my ability to concentrate solely on the task at hand. The student engineers eyed me suspiciously as we left "the box" and they have mentioned the mission playfully when I've encountered them since.

The odds against circumstances in real life stacking up in such a way? I'd guess a thousand to one against it. But everytime I go to Clark (or anywhere) it's like deja vu, and I scout out the fine print on the approach plates the way a miser looks for tax deductions on a 1040. I'll not be had by fine print again.

ABOUT THE AUTHOR

Capt Lodato, a C-5 aircraft commander with the 301 MAS (Assoc), is a free-lance photojournalist whose articles have appeared in nationally known magazines. A native of California, he flew KC-135s and O-2s while on active duty.

Major Durham and Crew

GOOD SHOW

Kneeling, left to right: Maj Louis D. Durham, aircraft commander; 1/Lt Robert P. Gradle, copilot; and TSgt Dennis L. Bowling, flight mechanic. Standing, left to right: Sgt David S. Greskovics, crew chief; Airman Joseph A. Ruperto, crew chief; Airman Eldon D. Schmidt, PJ, and A1C Frederick H. Reinhardt, PJ.

During a local area support mission, an HH-53C, commanded by Maj Louis D. Durham of the 55 ARRS, Eglin AFB, Fla., experienced an in-flight landing gear malfunction in which the left main gear would not extend. All normal and emergency procedures were accomplished by the crew, but the gear still would not come down. While the helicopter was orbiting, the gear dropped from the up and locked position to an intermediate position, but further efforts to fully extend the gear in flight were unsuccessful.

Maj Durham brought the helicopter to a hover on the ramp and a ground party attempted to release the gear by pushing up on the wheels. The left gear raised two inches, but returned to its original position. Pulling downward on the gear also proved unsuccessful.

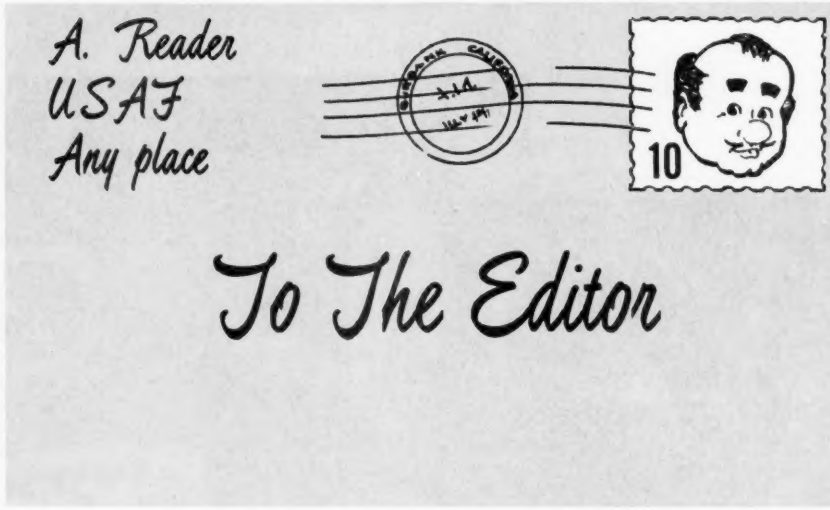
A Conference Skyhook was initiated through another aircraft, King 09, to MAC, ARRS, and the 39 ARRW Operations Centers and the 55 ARRS commander as Maj Durham orbited his helicopter to conserve fuel. After it was determined that the gear could not be lowered, the decision was made to land on stacked bed mattresses and sheets of plywood to prevent aircraft damage. Fourteen mattresses and four pieces of three-quarter inch plywood were tied with cargo tie-down straps and secured to the ramp for the landing. As the helicopter hovered over the landing area, a final attempt was made by ground personnel to pry the gear down. It was unsuccessful and the helicopter crew chief, over interphone, directed the aircraft to a smooth landing on the mattress platform.

The initial investigation revealed that the left main landing gear drag strut had failed. There was no damage to the helicopter.

Maj Durham and his crew performed in a highly professional manner. Their judgment and skillful handling of this emergency prevented major damage to the aircraft and possible injury to the crew. Sgt David S. Greskovics, crew chief, and Airman Joseph A. Ruperto, assistant crew chief, both of the 55 ARRS, were among the ground crew team that assisted the helicopter. Their actions were significant in the successful termination of the emergency.

For Maj Durham's crew's initiative, skill, and professionalism, THE MAC FLYER offers a well deserved "Good Show."

Letters To The Editor



Thoughts on Discipline

Having read the articles on pages three thru nine of the July issue of THE MAC FLYER I returned to page eight to look at the accompanying photo and its caption. Throughout the two articles, I find the word "discipline" or variations thereof in print 46 times, including the one under the photo. The photo appears quite incongruous with that of which we speak.

You are knowledgeable of the frequency of accidents and incidents which bend our wing tips while taxiing or towing which occur due to lack of discipline.

Why then, when we take one random photo, do we find an aircraft at least 20 feet from the centerline on which it should be taxiing, or parked, as the case may be. Is it lack of discipline, or possibly the lack of the three motivating factors to which 1st Lt Humphreys alludes on page six?

I feel that discipline can only exist if we build on and instill in our new people a respect for their leaders, and a love of the job at hand, with the only fear being toward an involvement in any situation that would tend to take any of that love or respect from us.

I may have misunderstood the whole situation. I now find that the caption to the photo on page eight ("Whether you're on a cargo or patient run, oxygen discipline is a must.") is just misplaced and is printed at the lower right corner of page 11. ("No sweat taxiing here, the ramp's always clear.")

I will now cease and desist from any further philosophizing about discipline this day before my retirement from the Air Force. Keep your beautiful publication coming to the field, and thank you for the many profoundly meaningful moments I have experienced within the pages of THE MAC FLYER.

Daniel L. Hayes, MSgt, USAF
63 MAW/LGM Industrial Safety
Norton AFB, Calif., 92409

★ Your letter brings to mind two old sayings, "One picture is worth a thousand words" and "Photographs often lie." At first glance at the photograph you mention, an assumption that the pilot should be taxiing on the centerline seems quite valid. On the other hand, each situation (and airfield) has its own peculiarities which, for safety's sake, often dictate deviations from otherwise standard procedures. While taxi lines at most of our bases generally provide sufficient wing tip clearance, there are times when this may not be true — particularly with our larger aircraft and during periods of taxiway construction. The circumstances existing at the time this photo was taken are not known. Nevertheless, your point is quite valid and your eyes very sharp. Thanks for your letter, and good luck.

Fighter Philosophy

The members of the 406th Tac Ftr Tng Wg and in particular the Stan/Eval Division viewed your article, "Got a Red Hot Emergency? Cool It," in the May 74 issue with considerable interest. Basically, we couldn't agree with you more. Rushing emergency procedures without first engaging your brain can affect your life expectancy in an F-4 (despite the "magic" ejection seats) just as quickly as it can in a C-5 or C-130 — maybe quicker!

Back around page 29 of the same edition is an article entitled "Near Miss." You might be interested in some tidbits about the present Air Force fighter collection that could possibly prevent your getting Excedrin Headache No. 1 (midair). The F-4 and like fighter aircraft in the current inventory do not like low airspeeds (less than 350-400 knots) very much. What all this means to you BUFF drivers is that you may be the one who has to get out of the way, because in the traffic pattern the figher jock may not be able to gather enough "smash" soon enough to get out of yours! It has to do with wing loading, thrust-to-weight ratios, reaction times and such. "Keep your head out" applies to any flying machine in the Air Force. Yes, fighter pilots can read — and do! Keep up the good work. We look forward to receiving the next MAC FLYER.

Roderick C. Gibson, Colonel, USAF
Deputy Commander for Operations
406th Tactical Fighter Training Wing (USAFE)
APO New York 09286

It's Been Great, Old Friend

Globemaster No. 1044
c/o 164th Military Airlift Group
Tennessee Air National Guard
Memphis, Tennessee 38116
PLEASE FORWARD
Dear Shakey

I just read the news in the Memphis newspapers about your retirement. I know you've earned a rest and you're looking forward to relaxing in the sunshine in Arizona. But I wanted you to know that I'll miss you.

The first time I ever walked around you on a preflight, I fell in love with you. I know what some people were saying — that you were getting along in years, that you were fat, and some even said ugly — but you weren't any of those things to me.

We got to be good friends there in Memphis, and we logged more than a thousand hours together. I got to know you better, and the more I learned, the better I liked you. I learned to take the proper care of you, and all the time you were taking care of me. And you never once let me down.

Oh, we had some great times together. Remember the day you punctured your number three rocker arm cover between Guam and Wake Island? You were awfully embarrassed about that trail of oil you left on the ocean, but we didn't hold that against you because you brought us in on your other three engines, even with a full cargo load. We all appreciated the extra effort.

You know, you left a special mark on the people who flew with you. To this day I still close hatches on other airplanes very quietly, because of that distinctive noise your flight deck hatch made if somebody slammed it. It made a noise exactly like an engine backfiring, and it would scare the flight engineer half to death every time. And I still have a hard time realizing I'm airborne without hearing "Cowl flaps, wing flaps ready for takeoff" on the scanner's report.

The other night I had a nightmare about forgetting to remove your tailstand before takeoff. And that brought back memories of wrestling with the thing in a monsoon at Da Nang and again in a snowstorm at Thule. I think you hated that tailstand even more than I did. And who could blame you for being uncomfortable with 20 feet of pipe hanging off your empennage? That's an indignity a war hero shouldn't have to put up with, but we really had to do it for your own good. We didn't want you to get hurt and have to sit down suddenly on the ramp if we put too heavy a load on your hoists.

I don't have to tell you how much we all admired your combat record, because I know how shy you are about that. You wouldn't even wear your ribbons until the old man made Maintenance paint them on. I guess you figured your MAC patch and that American flag over your tail number were all you needed. But still you were pretty proud of the Tennessee Air Guard decal on your fuselage. I saw your nose gear inflate a little that day at Kadena when that airman from Traffic recognized you as a fellow Tennessean.

Then the big ones came along, and I hope you understood when some of us couldn't resist them. You've got to admit that Starlifter is a gorgeous doll, and the Galaxy! You could almost put your whole fuselage in her cargo compartment! I guess it's not the first time the older girl couldn't keep up with the younger competition — but did you ever know a man who ever got completely over his first love affair, especially one with so much class?

I don't care if you've got varicose wingspars and hardening of the hydraulic lines. For my money you've still got class, baby. You gross out with 185,000 pounds of class. So relax in the sunshine and take it easy. I don't know anybody who's earned it more.

But while you're out there, you might like to think back about what I've said, and remember that there are a lot of us around who still get a kick out of looking a little bit smug every time we get the chance to say, "Yeah, I used to fly Shakies."

Happy Landings,
John Means
MSgt, USAFR

★ **MSgt Means, formerly a member of the Tennessee Air National Guard, is a Congressional press assistant in Washington, D.C. and a loadmaster with the 512th Associate Wing (C-5) at Dover AFB, Del.**

Splashdown Survival

Helicopter ditching? Aww, it'll never happen to meeeee!

by Maj Daniel A. Nicholson, Commander
Det 7, 37 ARRS
Minot AFB, N.D.

A CH-46 helicopter impacts the water following a two-engine flameout at 100 feet.

Helicopter ditching occurs so infrequently that crew members often reason that it is a thing of the past in an age of reliability. Consequently, there may be chopper crews that unconsciously take risks which would cause their pulses to throb should they stop and reconsider their actions.

This "it can't happen to me" attitude manifests itself most often in questionable knowledge of ditching procedures, insufficient planning for ditching prior to overwater flights, failure to have available, or to wear, required water survival equipment and signalling devices, or being ignorant of their use.

Overconfidence in our own capabilities or those of our aircraft is a hazard familiar to all aircrew members. But it is a subtle enemy. A chopper crew depends upon a mass of gyrating, whirling push-pull rods, bell cranks, bicycle chains, gear boxes, linkages, servos, sprockets, and intermeshing blades to continue flying long enough to safely reach shore. And they don't always make it back to the beach.

And while numbers of helicopter crewmen have gone to Davey Jones' locker in their heiicopter coffins, many more have survived only because they were adequately prepared to ditch when their turn came.

Since 1961, twenty Air Force helicopters have either crashed in the water or ditched. Engine and transmission failure, flight control malfunctions, and pilot error have all contributed to these mishaps. Fifteen persons died in these accidents, at least four of them by drowning.

To survive a ditching requires advanced preparation and planning, as the majority of helicopters, regardless of flotation hulls, have rolled inverted and sunk within one to five minutes. The actual ditching misfortunes of several sister service helicopter crews illustrate the varied survival problems that chopper aircrews and passengers must anticipate in a ditching situation.

The Whirlybird

This H-53 crew had just departed from a hover over a calm sea. Two crewmen in the aft cabin were secured near the open cargo ramp with makeshift gunner's belts fashioned from cargo straps. The crew chief and a fourth crewman secured themselves in the forward end of the cabin as the aircraft began to climb. As the aircraft rolled out of a gentle right climbing turn, it shuddered violently and a loud popping sound was heard in the rear of the cabin. The crew chief saw that the tail rotor had separated from the aircraft and advised the crew over the intercom.

The aircraft wallowed from left

to right for several seconds as the aircraft commander bottomed the collective and fought vainly to maintain control. The chopper began a flat, rather gentle right spin which increased in severity until water impact. The pilot managed to flare the helicopter somewhat, slowing the descent just before impact. Upon impact the main rotor blades struck the water, disintegrating as the aircraft rolled left to an inverted position. The huge chopper sank immediately. The two crewmen wearing makeshift harnesses were thrown from the aircraft by centrifugal force. All six crewmen suffered major injuries.

Upon impact the pilot's helmet was torn from his head, but he jettisoned his window, exited through it, and swam to the surface. The copilot, momentarily knocked unconscious by the impact, came to as the water splashed in his face. In his state of shock he instinctively unbuckled his seat belt and shoulder harness and rotated his emergency exit release. He became entangled by the intercom system cords and his helmet was pulled off but he pushed free of the submerged helicopter, inflated his life preserver, and floated upward toward the surface. He remembers nothing after that. He and another crewman wearing life vests were pulled from the water by rescuers.

The crew chief and the fourth crewman were dazed, confused, and disoriented. Groping their way past obstructions in the underwater darkness, they experienced great difficulty locating and reaching an emergency escape hatch. By the time they made their way out of the chopper it had come to rest, inverted on the ocean floor in 70 feet of water.

Light in the Dark

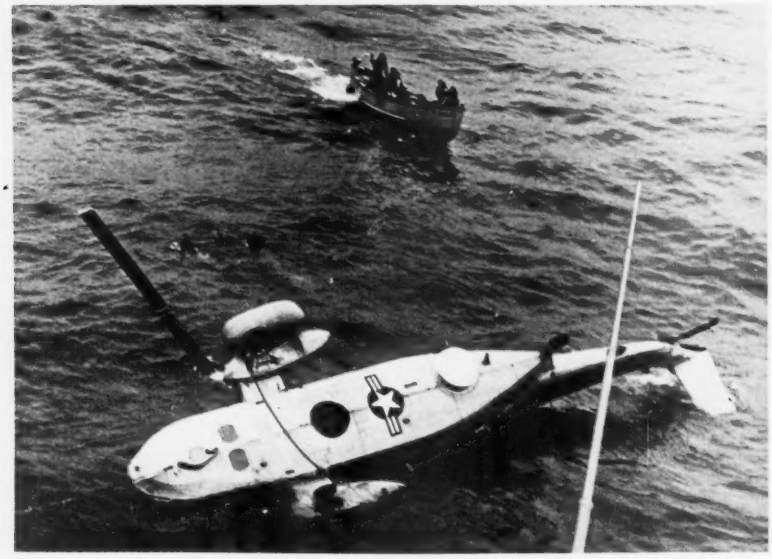
The crew of an H-3 flying on a dark, moonless night, spotted a strobe light on the ocean surface and interpreted it to be a distress signal. The pilot aligned the aircraft for an approach. He had decided to make a low, slow pass to illuminate the source of the light with the aldis lamp.

When the pilot realized that he was overshooting his objective, he reduced power and raised the nose to decrease airspeed. As the airspeed decreased, the pilot broke his instrument scan to observe the light in the water.

At about this time a crewman in the cabin misinterpreted an intercom transmission and activated the aldis lamp, thinking the pilot had requested it. The sweeping aldis lamp, combined with the flashing strobe light, distracted the pilot and caused him to lose his instrument scan and develop vertigo. The chopper flew into the water in a slightly nose-high, right bank. The helicopter immediately rolled inverted and filled with water.

Two cabin crewmen who were standing in the personnel door and secured by gunner's belts were thrown about the cabin as the chopper hit the water. One was thrown headfirst into the servo compartment. His helmet protected him from head injuries and neither man was injured.

Two of the crewmen released their harnesses prematurely and were swept back into the cabin by in-rushing water. Both men surfaced together in an airpocket inside the aircraft but they became separated during their efforts to escape. One of them, apparently disoriented in the underwater darkness, was lost with the aircraft when it sank. The other crewman, miraculously, spotted the outline of the open



Survivors awaiting rescue after ditching their H-3.

door against the phosphorescence of the water and swam to safety.

The pilot tried to egress through his broken window but became entangled in it. Releasing it with the jettison handle, he surfaced with the window around his neck. The copilot could not open his window with the emergency release handle, so he opened his sliding window and started out; but he couldn't get out until he removed his helmet. He then became entangled in the intercom and maplight cords, which he pulled to the surface. The H-3 sank after he disentangled himself.

Who, Me Ditch?

A UH-1 was flying along the coastline at 3,000 feet. There were nine persons in the plane but only one life preserver. The crew considered life preservers unnecessary due to their intended flight path near the shore. They were a half mile from the beach when the helicopter's engine failed. The pilot entered autorotation, turned toward the beach, and alerted the crew and passengers. He instructed them to move to the left side of the cabin and to open the left cargo door; the right door was left closed. The pilot flared the helicopter and zeroed his airspeed just above the water.

As the aircraft contacted the water, the pilot pulled in pitch, allowing the Huey to settle in. He applied full right cyclic and rolled the craft into a 45° bank angle to position the open cargo door upward for crew egress.

Just as the helicopter hit the water, three passengers dove from the open left cargo door. The crew chief followed, jumping feet first. The sudden force of the main rotor blades striking the water caused the chopper to lurch convulsively into a 20° left bank. The rotor blades slashed into the water amid the three swimming passengers. One was struck near the right ear and was never seen again. Another, observing a blade coming toward him, dived and was struck on the forearm. He survived. The crew chief, who had removed his helmet, saw a blade coming toward him, but was struck in the head before he could duck out of its way. Since the blade was turning slowly by this time, he was not seriously injured.

Two other passengers also exited the aircraft before it rolled violently to the left. One, who was not a swimmer, managed to stay afloat. The other man clung to the aircraft, attempting to remove his boots. But the aircraft sank before he could do so.

A sixth passenger remained inside the aircraft until it had rolled to the left and the cabin had filled with water. He considered escaping through the right cargo door, but elected not to, as the pocket of air trapped in the cabin would be lost if he opened the door. Instead, he dived down and out the submerged left door, surfacing uneventfully.

The copilot unfastened his seat belt and tried to jettison his door as the helicopter rotated to the left. Failing in this effort, he actuated the door handle and kicked the door open without difficulty. He dived through the door of the aircraft as it continued its roll to the inverted attitude.

The pilot attempted to jettison the right door as it rolled skyward. He pulled the jettison handle six to eight inches and kicked the door several times but it failed to open. By now the cockpit was nearly submerged and his head was under water. He tried to dive straight down through the copilot's door, but his seat belt kept him in his seat. He flipped the latch and dived out, surfacing as the craft completed its turn upside down. The aircraft sank less than a minute later.

ABOUT THE AUTHOR

Maj Nicholson was commissioned through OTS in 1962 and was a B-52 navigator for two years before entering pilot training. After three years in the HH-43 helicopter, he transitioned into the C-135. Maj Nicholson attended Air Command and Staff College before assuming command of Det 7, 37 ARRS.

Conclusions

These are only a few of the documented helicopter ditchings. Some are filled with tragedies of error and omission. But each ditching demonstrated that at best putting a chopper down in the water is a maneuver which, to be successful, requires careful preplanning and quick emergency actions. The time and place to prepare for ditching is on the ground before it occurs — not after the engine quits.

How one squadron enlists the distaff force to drive the safety message home.

Samantha Fox

by Capt D. J. Lessard
99 MAS
Andrews AFB, Md.

MAC flying squadron commanders and safety officers have the sometimes not-so-glamorous job of getting important flying safety messages to the flying troops. But how does a unit flying safety officer get the attention of aircrews to convey the important, but sometimes unglamorous, safety message?

The 99th Military Airlift Squadron, of the 89th Military Airlift Wing, at Andrews AFB, Md., instituted an accident prevention tool known as Samantha Fox. Who is Samantha Fox? To know Samantha, you must first know her mate, Sam Fox.

Sam rose to fame in the days of the 1254th Air Transport crews (the predecessor of today's 89th MAW). In those days, far flung 1254th crews sent trip messages with the addressee S-A-M for Special Airlift Mission and F-O-X as the designator for the Washington, D.C. SAM Command Post. After a while, these messages became known as SAM FOX messages and the crews that sent them as SAM FOX crews.

For many years SAM FOX has been a motivating force for 89th SAM crews, stressing safety, service, and reliability. And for more than a quarter of a century the unit has been accident free.

So, to further improve the accident prevention program, the 99th Squadron decided to find a live mate for the mythical SAM FOX. Her name — Samantha Fox. A search for the ideal Samantha Fox was started and the accident prevention program developed from there. Now, each month a new girl with attention-getting qualities is designated Samantha Fox. A series of Samantha photographs stressing, among other things, the monthly safety theme, is posted on the safety bulletin board. Safety information is arranged around Samantha and photos are changed weekly to keep customers (aircrews) coming back to see more of her — and to pick up the latest flying safety info.

SAMANTHA FOX
Charlotte Gladwell, Andrews AFB, Md.

Besides gracing the squadron safety bulletin board, Samantha also attends squadron flight safety meetings, presents safety awards to squadron personnel, and often participates in squadron social functions.

What does Sam Fox think of all this? It isn't known for certain — he's always on a trip, but certainly he's pleased with Samantha's safety efforts. And he's surely playing the field — for safety's sake, of course.

Global Notes

award winner

Maj Larry G. James, 304 ARRS (AFRES), Portland International Airport, Ore., received a MAC Distinguished Individual Safety Award in recognition of his outstanding performance during an inflight emergency. While flying at 7,000 feet in the vicinity of Mount Shasta, Calif., Major James' HH-34 suddenly pitched up. He applied forward cyclic but got no response. Realizing that the helicopter would continue pitching until it was on its back, Major James skillfully maneuvered it through 360 degree banking turns and safely landed the aircraft with only minor damage to the rotor blades.

air force awards

Three MAC units have been selected to receive USAF Flight Safety Certificates for meritorious achievements during 1973.

The 63d Military Airlift Wing, Norton AFB, Calif., completed five years of accident-free flying during 1973.

The 54th Weather Reconnaissance Squadron, Andersen AFB, Guam, completed 11 years of accident-free flying.

The 1st Aerial Cartographic and Geodetic Squadron, Keesler AFB, Miss., completed 14 years of accident-free flying. Since its nomination for this award, the 1st Squadron has been inactivated, with many of its personnel being reassigned to the 53d Weather Reconnaissance Squadron at Keesler.

pedro to the rescue

Three HH-43 air evac missions places this trusty old helicopter in the news again. Life and death were in the balance in each case.

Maj Thomas Madden, 2d Lt Thomas Kemper, Sgt David Southard, and Sgt Oliver Chapel, Det 3, 40 ARRS, responded to a call to evacuate a sergeant suffering from severe chest pains from his unit to Ubon Airfield, Thailand, 18 miles away. The man's condition was critical enough that travel overland would be impossible. Within minutes the patient was in the Ubon Hospital — where he had to be revived from a cardiac arrest shortly after arrival.

A Det 12, 40 ARRS, crew consisting of Capt Hal Scwartz, Lt Ralph McNally, and SSgt Gary Brown completed two missions within five days. The first was in response to a call to fly a dependent wife, suffering from serious internal hemorrhaging, from U-Tapao to Bangkok for immediate surgical attention. Had Pedro not been available, the patient would have been faced with a three-hour ambulance ride over rough roads.

The second flight transported a premature baby, fighting for its life in a portable incubator, to Bangkok. A night landing was made in a soccer field illuminated by automobile lights and night flares. The baby was transferred to a nearby hospital where he recovered. Dr. (Capt) Thomas Hilsman, flight surgeon, 11th USAF Hospital, U-Tapao, and Lt Beverly Wright accompanied the crew on this mission.

A Rare Bird

by Lt Col Robert E. Baltzell
Chief, MAC Flying Safety Division
Scott AFB, Ill.

There was a time in aviation's past when safety officers shouldered most of the blame for accidents — a new twist to the old "Kill the Messenger When the Message is Bad" trick. That philosophy has pretty well been discredited today, but in a few of the flying units of old, some commanders reasoned that since their safety folks were supposed to prevent accidents, they were at fault when an aircraft crunched.

We've come a long way since then, just as we've seen a lot of years pass since the days of "Clam up guys, here come the safety hoods." We've learned to recognize that commanders have the responsibility, functional managers have the authority, and the safety guys provide the expertise in a field that requires a "jack of all trades" who masters many of them.

Not everyone in MAC has an opportunity to become a flight safety officer, and that's unfortunate. The field is exceptionally challenging and also serves as a rewarding career broadening assignment.

Flight safety is not a formal career field, as such, in the Air Force today, although at one time

Ever wonder how the safety guy got into the business? Here are some steps to follow.

it did carry its own AFSC. Today, flight safety officers are assigned an X prefix. Their full AFSC then designates their safety expertise in a particular weapons system. MAC's present policy is to open safety jobs to as many officers as possible to provide them this valuable experience. Some may choose to remain for additional tours as they move up the ladder from wing and intermediate levels to MAC Headquarters. But the choice of whether or not to remain in safety is theirs.

What are prerequisites for a safety officer assignment? First, an officer must be highly qualified, preferably with instructor or flight examiner experience in unit aircraft. Next, he needs formal training to prepare him for the specialized responsibilities he will assume. This training is conducted at the University of Southern California Safety Center, Los Angeles, Calif. The 11-week course provides instruction and training in aeronautical and electrical engineering, physiology, psychology, management, and communications. The jam-packed curriculum is rounded out with extensive courses in accident prevention and investigation. It's a workhorse program and allows little time off for weekends at the beach or Disneyland. This training gives the flight safety officer an excellent foundation in aviation accident prevention. While graduates aren't experts in all areas by virtue of their diploma, they have a good grasp of how to manage an investigation, when to ask for help, and how to get it.

The flight safety officer works as his commander's troubleshooter. As a staff officer, he works closely with all levels within the chain of command. There are few fields in the Air Force that provide such a degree of exposure to Air Force management concepts. The flight safety officer works with maintenance and operations and must understand their functions and channels of action. He must have a working knowledge of airfield operations, quality control and maintenance practices, supply, traffic procedures, and just about any area pertaining to flying. And the newly assigned flight safety officer can expect to burn some midnight oil before he'll feel comfortable in this challenging job. The point is, a flight safety officer is involved in nearly all areas of weapons systems management and his specialized safety knowledge plays an important part in the daily decisions of a going operation.

Flight safety officers come in many sizes, shapes, and ranks, but one thing they all must have in common is the ability to work with people. Their positions require knowledge, persuasiveness, and perseverance, as well as good human relations. In safety, you learn to sell ideas based on how to solve problems.

So you can see that the flight safety officer isn't really a rare bird at all. He's actually just a good manager with a knowledge of the principles of accident prevention.

MAC is always looking for top notch people for its safety program. And if you think you fit the bill, the first step is to talk with your local safety folks. They can fill you in on training prerequisites and openings in local flight safety officer slots. You might find there's an opportunity to work into a position right at your home base. Don't get discouraged, however, if you can't step in as Chief of Safety on the first day. As with vintage wine, all good things take time, patience, and a good deal of follow-through. If all else fails, a letter to MAC/IGF, Scott AFB, will start the ball rolling.

If your student doesn't respond to instruction, it may be time to look at yourself.

Instructional Technique

If you happen to be one of those instructor pilots who feels that the cranial portion of many of their students has ossified and that their flying borders on the catastrophic, try taking a hard look at yourself.

The fact is most students are very bright, and it could be your "instructional technique" that is lagging behind the power curve.

The phrase "instructional technique" is a bit vague, to say the least, and that's probably because properly defining it is a major headache in itself.

Yet, if we instructors were always honest with ourselves (and we always are — right?), we would admit that many of our training flights don't achieve the desired level of productivity. Stated more simply, on many flights our students don't learn much and we may have flamed out as instructors.

It's not that our techniques are always wrong. But remember, it's much different for a student to sit in an antiseptic classroom and listen to a lecturer drone on about things like actions and reactions than it is for him to sit sniffling in a damp, cold aircraft, tryng to comprehend a training exercise that has just been changed.

Though not cure-alls, there are a few valuable principles culled from the instructor training classroom that are applicable to every flight instructor's task. And while these principles may seem "old hat" to many instructors, they are particularly helpful to the less experienced instructors and students.

To begin with, the briefing is one of the most effective time savers that we have. A good ground briefing saves time in the air (and that saves money). We should aim, therefore, to get maximum benefit from briefings.

Hear and Forget

Some years ago I had the great fortune to meet a genuine Chinese philosopher, believe it or not, whose words seem appropriate to this occasion. She indicated wisdom beyond her years (early twenties) when she said:

"Hear and forget. See and remember. Do and understand."

Her words brought to mind those hot summer afternoons in my own training days with Master Engineer McSprockett speaking for precisely one hour on the intricacies of the "Wrong Tornado" — or something like that — without even moving his lips. Losing the titanic struggle to remain awake is the sum of my recall of those nearly forgotten days.

The "See and Remember" bit is good. I'll bet you can still reproduce from memory diagrams and the like without understanding the works or workings that applied to them. If we can't understand, then recalling what we see may be the next best thing. But the third stage of instruction is what we should be working for.

Do and Understand

Any formal instructors course invariably goes to great lengths expounding about involving the student, testing knowledge, and generally keeping things bright and snappy. These aspects can be

neatly and effectively combined into the flying briefing by the obvious move of not telling the student anything, but getting him to tell you.

Contrary to the views held by many, most students are motivated enough to study reading assignments — provided the assignments are not unreasonably long and are in digestible prose rather than technical jargonese. His response to questions of the "How do you do this?" variety will indicate his level of knowledge to the instructor.

Having quickly checked that he remembers his previous work, you can soon see how much he has prepared and understands his new exercise. The lucky instructor finds that his student knows the basics. If he doesn't understand the basics, concentrate on these important aspects. In any event, by asking questions an instructor will probably save 15 minutes of talking about something that the student either already understands or which is so far above his head that it might as well have been delivered in the Serbo-Croatian language.

Clever Tricks

Notice the subtle question in the last paragraph: "How do you do this?" The use of how, why, where, when, and what, prevents the student from answering yes or no. Look at it this way. A wrongly phrased question which brings a "yes" answer means the student was lucky with his guess. A wrong "yes" or "no" answer means you have to tell him what you know rather than what he knows. It is so obvious it is painful, but how often do we consciously apply this simple technique.

Our next problem comes when, as must inevitably happen, we have to explain something to the student. This can be nasty. But remember the old axiom, "A picture is worth a thousand words." Prepare and have available either aids or plans for expressing yourself on a blackboard.

Finally, try to restrict a briefing to less than 45 minutes. Remember that funny graph which shows how a person's concentration decreases sharply after about 45 minutes? It has been my experience that after about 30 minutes in an average student-instructor briefing session, I nearly have to flog my student to keep his attention.

Getting Airborne

If your situation is at all like mine, anything from the discovery of a mouse to the demise of a grandmother can completely alter your mission at the last moment. Have an idea before you take off about how much time you plan to allot to each portion of the exercise. That way, old Bloggs (the RAF version of the standard NATO student) gets a fair crack at everything. Do not become so involved in one maneuver — especially your favorite one — that others are neglected.

After you get airborne there are a number of basic instructing points which can be dragged directly from the classroom to the cockpit. Some are so basic that they tend to be overlooked. To begin with, if your student is fairly new in the aircraft, have a good look at him seated in the cockpit, and perodically when he is holding the controls. It is amazing how often flying time is wasted because an instructor fails to appreciate that he and his student are not seeing the same picture during the approach or takeoff. It could be because his rear end has reached a different stage of development, or that his neck has not yet been compressed from years of wearing a helmet. Whatever the case, you should be at least aware of the picture he sees and his method of controlling the aircraft. I add this because students often seem to think that the millions of dollars or pounds spent on sexy grips and handles are for the older generation only. An awkward or affected method of control handling usually causes problems at a later stage and can sometimes be a difficult habit to break. ("That must be Bloggs flying that aircraft — he wobbles every time he transmits, trims, pickles, fires," etc.)

or "I Have it, Bloggs!"

by Sq Leader Ronald D. M. Sivewright, RAF
1551 FTS
Hill AFB, Utah

"Bloggs"

High Density Instruction

"Bloggs, that last approach was grim, and the go-around was ghastly! Now that you have settled down on this approach, let me remind you of your next moves. Yak Yak Yak."

Who of us cannot remember attempting something new and difficult while the instructor in the other seat was talking about something quite different. It is a sorry fact that, because of inadequate briefings and a mistaken belief that maximum pole (stick) time is good for Bloggs, the above situation is common. Just try to remember how much you reacted to excess chatter when you were Bloggs. Take over control yourself when you want to pass important information and hand the controls back when you are finished.

Toothpaste Tubes

I referred above to the mistaken belief that a student should spend maximum time on the controls. A recent study among airline pilots, using landings as a measure of efficiency, showed that the later in the flight that the aircraft commander took control, the better the landings. It appears that even while in calm and relaxed conditions, a pilot in control is under pressure which accumulates and results in decreased efficiency at crucial stages. I have found I get much better results on an air refueling sortie, for example, if I fly the lead up (hook up) myself and hand over control in the latter stages. On occasions when I have seen students do the lot themselves, they tend to alter the shape of the control grips to the shape of their own tiny fists — by brute force. Hence the "toothpaste tubes."

ABOUT THE AUTHOR

Squadron Leader Sivewright, commissioned in the Royal Air Force in 1957, has flown both fixed wing aircraft and helicopters. He has logged over 4,000 hours, mostly in choppers. He is presently an exchange officer and H-3 instructor pilot with the 1551 FTS, Hill AFB, Utah.

Demonstrations

One of the most important tools of the instructor is the demonstration. It need hardly be reiterated that a demo by an instructor should be accurately flown and given at an appropriate stage in the learning sequence. In practically all cases this would be at the start of the exercise. Think hard before letting Bloggs have the first go at a new maneuver. If he does perform it cold, the parts of it he'll remember will probably be the bits when you were screaming and he had his eyes closed. Just think how nice it would be to have seen, and remember forever, a perfectly demonstrated landing in your new aircraft type. On the subject of demonstrations, it is important to aim for a coordinated speech (chatter) and action technique. Ideally, the chatter should anticipate the events so that the student has time to absorb the message. Try, "Notice that the airspeed is starting to increase, Jones," rather than "Did you see that, Bloggs?"

Summary

Poor old Bloggs. Had his mother only known he was destined to be the object of endless trials in instructional development, a generator of paperwork, and a source of amusement for his instructors, she would never have let her darling go. As it is, he is here and our responsibility. With a little effort we can repay all the fun he provides us by increasing his capabilities and possibly his lifespan. Here are some tips:

Plan your briefing period honestly.

Use how, why, where, when, what.

Find out what he knows not what you know.

Use aids when explaining things.

Plan blackboard work.

Watch the clock.

Look at your student in the aircraft — regularly.

Determine whether he needs what you plan to teach him.

Do not talk while he is busy.

Take pressure off him by taking turns at the controls.

Plan ahead for demonstrations.

And last, but not least, have the best of luck and lots of fun.

"Request ASR Approach."

Seldom used, but readily available, the surveillance approach can point you toward the runway.

by Capt R. Gregory Carr
11 AAS
Scott AFB, Ill.

The surveillance radar approach, a half brother of the precision approach, is shrouded not so much with mystery as with cobwebs. You and the controller are the team, and a safe landing is the goal. But understanding what you're both doing is essential. Are you up on the tolerances used, the controller's responsibilities, and your responsibilities?

The ASR approach starts when the controller begins vectoring the aircraft. Altitude assignments which may be located anywhere are made to coincide with areas shown on a map near the radar scope. Each area is assigned a minimum vector altitude which assures radar coverage, communications, and a 1,000-foot clearance (whether or not you're over mountainous terrain) above any obstacle within three miles.

The final approach fix is not necessarily collocated with the PAR's glide path intercept point. Indeed, the controller is often using another scope.

AFM 51-37 states that at the missed approach point (MAP) — between the final approach fix (FAF) and the runway's end — the course width won't exceed 500 feet either side of the runway edges or three precent of the distance between the radar antenna and the point where the approach is discontinued, whichever is greater. The three percent figure applies when the distance from the radar antenna to the MAP exceeds about 2.75 nautical miles (maximum allowable distance is 20 nm). For example, if your MAP is located at the end of the runway ten miles from the antenna, you may still be technically on course when you reach the MAP, but the approach end may be far off to one side, some 1,800 feet away. You're safe from obstacles if you remain at or above MDA, but can you land from this position? This is an unusual situation but it could exist.

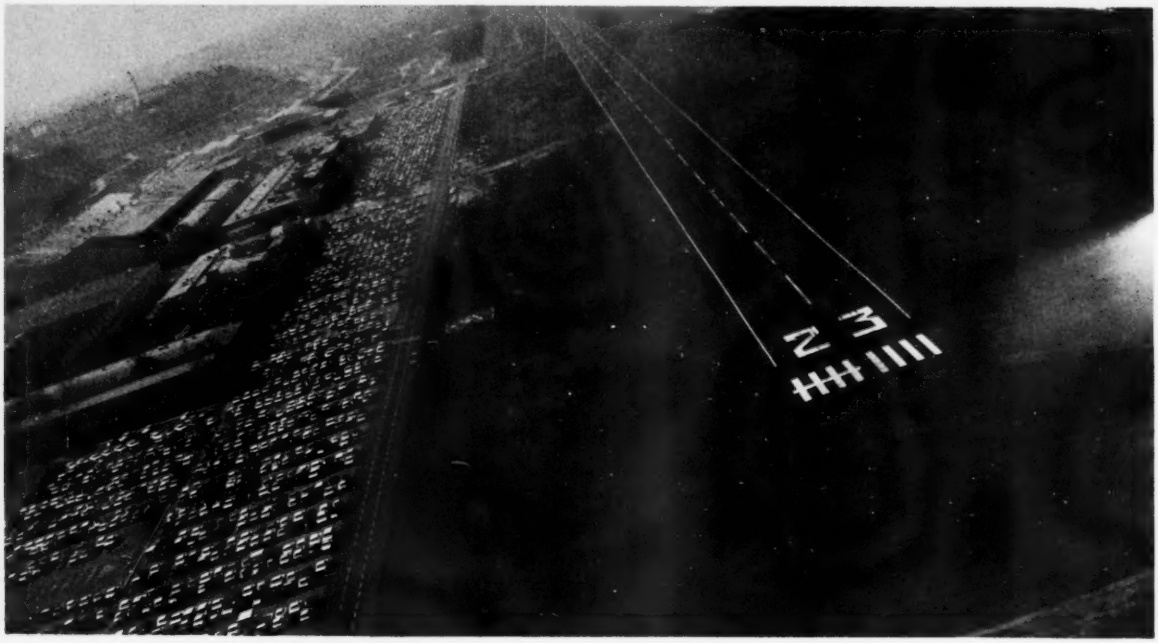
Controller's Responsibilities

Let's look at the controller's responsibilities. At initial radio contact where Airport Terminal Information Service (ATIS) is not

ASR Approach

available, he will give you: approach clearance or type of approach to expect, the runway in use, the wind, the ceiling and visibility if the weather is below 1,000 feet (or below the highest circling ceiling requirement if greater than 1,000 feet), or visibility if it is less than three miles, and the altimeter setting.

Soon afterward he'll issue vectors and lost communications instructions. He must issue lost communications instructions to you if weather reports indicate that you're likely to fly through IFR conditions during the approach — which includes vectors to final. He knows that it's your responsibility to determine how



You've arrived, but you're still not there.

adequate his lost communications instructions are, and if you tell him you can't hack them, he'll simply request your intentions. You should then tell him what you will do should communications fail during the approach.

The controller must also tell you the location of the MAP and give you an MDA if you're planning a straight-in approach. This issued MDA does not vary with your aircraft's category as circling MDAs do. If you want to know the circling MDA, you must ask for it, giving your category. Controllers are too busy to keep up with the category of every aircraft in the pattern. If the Air Force ever had controllers who could control traffic well and still keep up with everybody's category, they probaby could make fortunes on television's game show, "Concentration," and retire in their late twenties.

Unless you request missed approach instructions beforehand or are requesting a low approach, the controller isn't required to issue the instructions until you report going missed approach. This rule applies only to USAF controllers.

ABOUT THE AUTHOR

Capt Carr was commissioned through ROTC following graduation from the University of Alabama. Completing pilot training in 1971, he joined the 11 AAS, Scott AFB, Ill., and is a C-9 aircraft commander. A graduate of IPIS he is an instrument refresher course instructor with the 375 AAW at Scott AFB. He has logged over 1,400 flying hours.

At least once before starting final approach, the controller will inform you of your position, usually in relation to the airport. Other calls required include a reminder by Army and Navy controllers to perform landing checks on downwind, a communications check, a wheels-down reminder, and advance notice of where descent will begin.

On final, depending on the scope being used, you may receive your mileage from the runway or from touchdown. If you so request, the controller will also issue a recommended altitude at each mile point until the slope of those altitudes carries them below the MDA.

Pilot Tips

If you're flying a gyro-out ASR, it's nice to know what bank angle approximates standard and half-standard rate turns. A good rule of thumb for determining the number of degrees of bank for a standard rate turn is to divide your TAS by ten and add seven. For a half-standard rate turn, use TAS divided by 20 and add seven.

The ASR approach probably won't be your first choice when the weather dictates an instrument approach. But by practicing ASRs and knowing what to expect, you might gain some confidence in your proficiency should a precision approach not be available. By all means use a PAR approach when the weather's bad, but don't hestitate to call for an ASR when weather minimums allow it.

Failure to report an incident can cause heartburn for those searching for the fix.

THE MISSING LINK

by Maj Jack N. Dole
MAC/IGFF
Scott AFB, Ill.

A weary aircraft commander walks into the Operations Center at a Pacific base. His long mission was punctuated with an engine shutdown and flight control difficulties. The crew is tired. As the AC steps up to the counter, the duty controller looks up and asks, "Did you fill out a MAC Form 97?"

"For crying out loud, can't you guys think of anything else besides our doing your paperwork?" counters the AC, feeling a bit harassed.

This is an understandable response, especially after a long crew duty day. One reason for it could be that the MAC Form 97 (MAC Aircraft Accident/Incident Report Work Sheet) may be somewhat of a mystery to many aircrew members. So let's discuss the value of the form to you and your fellow crew members.

The MAC Form 97 is a dual purpose work sheet for aircraft accident/incident reporting. It provides information used to analyze the causes of incidents or accidents and, hopefully, to prevent recurrence. The reportable incident categories are listed in

MACR 55-1, chapter 7, paragraph 8, but, basically, reportable incidents are mishaps resulting in: damage to an aircraft while engines are running, such as birdstrikes, lightning strikes, hail damage, loss of certain aircraft parts in flight, forced landings, in-flight flameouts or required engine shutdowns (except for training or where no failure or malfunction actually occurred), flight control malfunctions, physiological problems such as hypoxia and carbon monoxide poisoning, and other malfunctions or problems as defined in MACSUP 1 to AFR 127-4.

The completed Form 97, after being turned in to the ops center, is used by safety officers responsible for submitting the incident message report. Without a conscientiously prepared Form 97, information may be overlooked. This form is the first in a series of steps required for accurate incident reporting.

But what does this Form 97 do for you as an aircrew member? It prompts investigations to determine reasons for particular component failures. Such investigations usually require detailed analysis at various Air Force levels. These analyses may lead to repairs or modifications. Experts at major commands, numbered air forces, service headquarters, wings, and air logistics centers use information from the Form 97 in their studies. But if you don't supply your flight safety officer with the information he needs, the system starts to break down in its initial stage. As a crew member, your participation is essential.

After the flight safety officer has determined that an incident report is required, he prepares a message for transmission to a list of appropriate addresses. Time limits for submission vary from eight hours to 15 days after landing, depending on the incident. That's why he needs your information as soon as possible.

An Emergency Unsatisfactory Materiel Report (EUMR) may also be required in certain cases. This report is submitted through maintenance channels and goes to agencies that are responsible for monitoring the quality and lifetime span of certain parts and component equipment. Wing level flight safety officers and other safety officers up the chain of command are required to monitor incident reports and EUMRs until proper action is taken to correct deficiencies in materiel or procedures.

Aircraft incident reporting is an important part of the whole flight safety machinery, and you are the key that starts it running. The next time you experience an aircraft incident, remember: only you can put this corrective system into action.

ABOUT THE AUTHOR

Maj Dole is a Weapons System Manager in the MAC Safety Directorate. He entered the Air Force in 1963 following graduation from Arizona State University. He has flown the C-124, C-123, C-141, and C-118 aircraft. A safety officer since 1971, he received the MAC Outstanding Flight Safety Officer of the Year Award in 1973.

Struggling through an annual "check," the Master of Pretext finds a nightingale at the end of the trek.

C.R. TERROR

Come on 1700, come on! Only another 47 minutes to quittin' time, happy hour, spiritus fermenti, damsels in distress, and a terrorific weekend," sighed the Rotund One.

C. R. leaned back in his gray, swivel rocker and mentally massaged Saturday's golf match at nearby Forest Acres Country Club and the upcoming pre-gridiron festivities of French 75s and Bloody Marys at the Officers Club on Sunday.

Glancing at his Rolex 24-hour chronometer, the Master Clock Watcher cheered. "In the home stretch, scarcely more than a half hour to freedom. 'Bout time to start cleaning up my desk for next week's round of decision making."

"Buuuzzzz, Buuuzzzz."

The harsh sound of the telephone startled the Steady Steersman.

"Hang on, I'm comin'," blustered C. R. Hurriedly plowing through reams of paperwork, charts, and graphs, he finally located his phone.

"Combat Tactics and Techniques, the Director speaking."

A soft, cool, feminine voice replied. "Good afternoon sir. I'm Lieutenant Shapely with the 1313th Support Squadron. I didn't mean to interrupt you sir but I'm trying to contact a Major Terror."

"Ahem, it's quite all right m'dear. You have the right number and you're speaking to MAC's Foremost Flier, Major Terror."

"Sorry, I didn't know you were the Director. Your locator card indicates that . . . " C. R. interrupted.

"Well, actually, Col Jones is the director but he's TDY and he left the office in capable hands. Sorta like OJT, heh heh. Now m'dear, what can I do for you?"

"Sir, you're scheduled for annual aerobics at 0800 hours on Monday."

"Whaaaaat! But, ah, there must be some mistake Lieutenant," gasped the Master Goldbricker. C. R., shifting his brain into high gear, attempted to sweet talk his way clear of Monday's early chore. "Now settle down, m'dear. I did all those exercises and such back in the late spring or early summer. Lemmee think. Yep, it was just before Memorial Day weekend. So, why don't you just sign me off and i'll see you next May. Anyway, I'm in great shape."

"Sir, your training card is blank except for a pencil entry dated April 1969 and exercises were replaced with a mile-and-a-half run years ago. Colonel Thudd, the wing commander, directed overdue personnel to form at the track next to the base gym at 0745. I'm suppose to inform all of you that failure to attend will result in disciplinary action," explained the WAF.

"No sweat, I'll be seeing Colonel Thudd at the golf course this weekend and I'm sure that we can straighten out this trivial matter," C. R. explained with assurance.

* * * *

At the golf course the next day, Col Thudd's scheduled foursome didn't materialize. The missing player called in to report that he was departing shortly on an unexpected TDY. Colonel Thudd and the two golfers postponed tee time for thirty minutes hoping to find a player to round out the match.

Witnessing the colonel's dilemma from a distance, the Solo

Virtuoso of the Hook and Slice energized his baby blue electric golf cart and motored over to the impatient colonel.

"Good morning, Sir, I'm Major Terror — Combat Tactics and Techniques. Sir, I see you are short one player and I am a lone eagle looking for some keen competition and easy prey, heh heh," challenged the Master of the Divot.

"Very well, Terror. What's your handicap?" asked the colonel.

Eager to impress the colonel, C. R. responded, "Well, ahem, you might consider me a single digit midget. Put me down for a handicap of eight."

Thudd briefly scrutinized the Portly Pillar of the Putter as the foursome proceeded to the first tee to begin the match. The original three players didn't see much of C. R. during the game. Occasionally the Bandy-Legged Bluffer would wander out of the woods bordering the long fairways like Friar Tuck emerging from Sherwood Forest.

"Haven't quite got the hang of these new clubs. But after a few more practice rounds I'll get accustomed to the tortional flex coefficient and the whip factor of these clubs and be back in the groove," boasted C. R.

At the clubhouse following the match, C. R. cornered the Colonel at the bar. "Sure gettin' a lot of exercise today, Colonel. These weekly excursions around the links oughta exempt us golfers from aerobics, heh, heh," hinted C. R.

"I agree. Certainly puts a strain on your golf cart batteries, doesn't it Major?" Col Thudd commented coldly.

"Now I know where I've seen your name, Major. It was on a list sent to my office indicating personnel deliquent in aerobics. You're planning to complete aerobics on Monday morning," added the colonel.

"Wh-Why, o-o-of course," sputtered C. R.

* * * *

Screeching to a stop beside the track, C. R. shut down his machine, sluggishly slipped from behind the wheel, and slowly shuffled over to the assembly of souls who looked as if they were awaiting dawn execution.

"Good morning. I'm Senior Master Sergeant Lockjaw and I'll be scorekeeper during the aerobics testing. Everyone line up and give your weight and height to Lieutenant Shapely. When this is done, the test will begin," announced the crusty sergeant.

About halfway back in the line C. R. addressed a hefty master sergeant behind him.

"Hey Sarge, you're 'bout my size. How much we supposed to weigh, huh?"

"I think 185 pounds is max — but I'm not too sure," he replied.

Approaching the curvy WAF, the Paunchus Pilot took a deep breath and pulled in a little of the mid overhanging the rif.

"Your name, sir," asked the WAF.

"Terror, C. R."

"Weight?"

"Oh, aahh, 'bout 182 pounds."

"Height?"

Stretching his rotund five foot, six inch frame upward, C. R. replied, "Five feet eight inches."

"Thank you, sir. Report to sergeant Lockjaw over at the starting line."

"No rush m'dear. Maybe we can have some breakfast together after I fill in this square," suggested the Plump One.

The first group of runners, including C. R., lined up at the starting line and Sergeant Lockjaw barked the instructions.

"Each man is required to run one and a half miles in his appropriate time category. Six laps around this track equals one and a half miles."

C. R. gazed ahead and around at the track. Turning to one of the runners, the Bald One commented, "This'll be a piece of cake. Six measly laps around this track will be like a stroll through the Clark BX. Ran many a mile during college days at Ole Ivy."

Sergeant Lockjaw began the countdown. "On your mark. Get set. Go!" The starting line erupted in a volley of dust as the runners bolted forward. Near the head of the pack, C. R. maintained a pounding, heart throbbing sprint for nearly a full lap. But the effects of years of high living with little physical condititoning reacted like a drag chute on C. R.'s throbbing torso. Nearing the beginning of the second lap, the Panting Pilot focused his sweaty eyes on the cindered track and muttered aloud.

"Think I'll ease back on the throttle, gulp, 'till I catch m'second wind, pant. I'll take this next lap slow and easy an' then pour it on. That's what I'll do, gulp. Just cruise along with the rest of the pack. No hurry. This is not the Olympic games — no gold medals. Just fill, gulp, throb, the square."

C. R. struggled to maintain position within the main body of

C.R. Terror

sweating, red-faced runners. But the Straining Steersman of Stringers and Stabilizers gradually faded to a solo position far behind the rest.

"Gotta stop and walk for a bit. Gulp! Gasp! I'd like to meet the weenie desk driver who developed this diabolical drudgery. Musta measured this track with a stretched tape measure. C'mon body, just three more laps and it's all over. Why couldn't I have been TDY, flying, or on leave. I should of called Sergeant Fixit and had him pencil-whip this requirement," blurted C. R. with heavy breath.

After C. R. had wearily walked for nearly a half lap, other runners closed the gap from behind. C. R. regained a little strength and renewed the struggle. The

Master of the Martini intermittently walked, limped, and jogged for another couple of laps and stumbled passed the starting line for the fifth time. Beginning the final lap, C. R. was the sole occupant of the track as he continued to thump and shuffle in agony. Sergeant Lockjaw looked on unsympathetically with stop watch in hand.

With lungs burning, throat parched, and muscles near the point of collapse, C. R. rounded the last turn and headed toward the finish line.

"Gasp, groan; don't think I'm goinna' make it — but I gotta'. I can't bear to think of running this tortuous track in, gulp, a retest. C'mon bod', only 400 more feet. One foot in front of the other in rapid succession for 'bout, grunt, 200 more steps," stammered C. R.

Breathing with painful labor, C. R. squinted through cataracts of perspiration toward the end of his trial.

"I can see the finish; got it made; c'mon legs, don't quit now. Got all day, gasp, moan, to take it easy."

Ten feet from the finish, C. R.'s laboring legs could no longer withstand the pace or the load and started to buckle. The Aching Ace of Aerospace leaned forward like a wounded walrus and plunged headlong toward the finish. In one final gasp, C. R. thrust his portly profile across the line before collapsing in a cushion of grass beside the track.

Lieutenant Shapely and Sergeant Lockjaw hurried over to assist the writhing runner.

"Are you okay sir?" asked Lockjaw.

"Yeah, but I'd like some water and a towel," gulped C. R.

Shapely poured some water into a paper cup, propped up the weary one and held the cup to his lips.

"Aaaahhhh, thank you m'dear. You're a real Florence Nightingale. While you're at it, would you mind wiping my face with the towel," beckoned the Bald One.

Feeling better, C. R. propped himself up on one knee and looked toward Lockjaw.

"Sarge, how'd I do?"

"Sir, you completed the run in 17 minutes and 52 seconds. This places you in physical fitness category II," stated the Sergeant.

"What's all that category jazz mean in plain language, Sarge? Do I have to run this miserable mile and then some again?" asked C. R.

"No sir, you completed the run in just under the maximum allowable time, but personnel who complete the run in category II times are considered in poor physical shape. Sir, you just missed remedial training by eight seconds," explained Lockjaw.

"Categories, shmategories. Everyone these days is categorized, labeled, tabulated, and numbered without looking at the whole man." He turned to Lt. Shapely. "M'dear, would you wipe my face again."

"Of course. Sir, you seemed to be struggling quite a bit out on the track . . . "

"Well, ah, what did you say your first name was," circumvented C. R.

"Shirley — Shirley Shapely," replied the WAF.

"Shirley m'dear, I'm a little out of my element this week. My biorythms' curves are on the down side and an old track injury started actin' up on my knee during a golf tournament last weekend. Think I'll start running every day during lunch hour to strengthen my knee," declared the Fabled One.

"What a coincidence. I run every day at this time. We can run together and pace each other," invited the shapely WAF.

"Ugh!"

Weenie Wagon Resurrection

The C-133 flies again, this time in a civilian role.

Normally, when an Air Force plane makes its "last flight" to the boneyard, any further contact with it comes through memories of days gone by. Barring a national emergency, we seldom hear of a mothballed aircraft returning to regular service. However, a civilian company made an exception last year when it purchased a retired C-133 to fly the slopes of Alaska.

Owners of Northern Air Cargo, Anchorage International Airport, bought a Douglas Cargomaster in April 1973 at the Defense Property Disposal Office, Davis-Monthan AFB, Ariz., and ferried it across town to Tucson International Airport for maintenance inspections and repairs. Norman Moldoff, a retired Air Force C-133 pilot, and Carl Littlefield, a retired Air Force C-133 flight engineer, hired on to oversee the reconstruction of the airplane.

After months of preparation, in early August of this year, the bird was ready to travel to its new home. A crew of Moldoff, Littlefield, part owner Maurie Carlson, and active duty TSgt Ken Kozlosky, a "D-M" mechanic, flew the long leg from Arizona to Alaska.

The company plans to obtain an FAA certificate and operate the huge turboprop in oil-related activities. The aircraft can fly from Anchorage to the Alaskan North Slopes with 30 tons of cargo and, if the weather is socked in, return to Anchorage without refueling. With a cargo compartment measuring 12 by 12 by 100 feet, the company feels there will be a demand for the plane's outsized airlift capability.

The C-133 made its first flight in 1956. Douglas Aircraft Company manufactured 50 of these aircraft, which the crews affectionately called "weenie wagons." They were taken out of service in 1971 after thousands of hours in the air.

Northern Air Cargo had little difficulty adapting the MAC paint scheme for their company's use. With a swish of the paint brush the familiar letters "M-A-C" on the tail soon read "N-A-C," acronym for the company's name.

So if you happen to spot a C-133 in the northland, don't despair. You're not seeing ghosts of Aviation Past, but a resurrected "weenie wagon" enjoying some post retirement flying where the air's cool and fresh.

Quick Stoppers

Panel Puzzle

Some people insist on following rules of their own instead of Air Force rules. One wing feels that a contributing cause for some aircraft panels being lost in flight is that when they are removed and reinstalled, this fact isn't always entered in the AFTO Form 781.

The correct method of replacing an aircraft panel includes making a red X entry in the 781. After the new panel is installed, it should be thoroughly inspected and the red X cleared. That's pretty good assurance that the panel will stay put. But when the entry is left out of the forms, the inspection process can be overlooked.

When replacing a panel on your aircraft, make sure that extra entry is made. Otherwise, the panel puzzle may never be solved.

Active Actuator

After forty minutes of flight, the flight mechanic on the HH-53C actuated the cargo ramp controls to lower the ramp and raise the ramp door.

When the mechanic released the door controls, he found the door would not stay up. The pilot decided to leave well enough alone and directed that the door be closed. Shortly after the door closed, hydraulic fluid fumes filled the cargo compartment near the cargo door area, the second stage tail rotor servo caution light illuminated, and the utility hydraulic pressure gage reading dropped to zero. The pilot declared an emergency, lowered the landing gear, and landed with no further problems.

A post-flight inspection revealed that the aft attachment bracket connecting the ramp door actuating cylinder to the fuselage had torn off its sheet metal mount. This caused the cylinder to move forward and break the "door open" hydraulic line. Pressure depleted quickly after the line broke.

Huey Batteries

On preflight, the UH-1F's number one battery voltage read 24 on the voltmeter and the reading on number two battery was 22 volts. Engine start using auxiliary power was normal. After flying for an hour the helicopter landed and operated at flight idle (generator off the line) for 10 minutes.

Shortly after the next takeoff, the crew detected fumes in the cockpit. Suddenly, a loud thud from the front console prompted the pilot to make a precautionary landing. The crew found that the number two battery had popped it's top, had three dead cells, and another cracked cell.

After Deadline (THE MAC FLYER, September 1974) discussed this problem. Crews should use auxiliary power when available and stay alert for battery malfunctions. Extended operation in flight idle may be sufficient to cause the nickel cadmium (ni-cad) battery to fail.

Flaky Skin

Nearing an overseas base, a C-141, descending through flight level 230, encountered light chop and light icing. At 10,000 feet the Starlifter penetrated an area of moderate turbulence, moderate icing, and heavy precipitation. Radar showed no thunderstorms in the area. As the C-141 continued its descent below flight level 80, the ice disappeared and the air smoothed out. Landing was uneventful but after engine shutdown, the crew found that the leading edge skin had separated from the structural members on three of the engine pylons.

The skin tears were attributed to normal wear combined with in flight icing and heavy precipitation — a good reason to check your Starlifter over well during preflight. Flaky skin has a tendency to peel off when punished by abnormal stresses like turbulence, icing, or heavy precip sometimes encountered on C-141 flights.

Try, Try Again

An HC-130N crew aborted a mission after detecting fuel fumes in the cargo compartment. A leak was found in a manual shutoff valve above the fuselage tank, and maintenance personnel tightened a "B" nut and stopped the odor. The bird completed two more uneventful flights, but on the third flight fumes again filled the cargo compartment. Back on the ground, four Wiggins fittings on the fuel vent line were tightened to stop the fumes. Next flight fumes again plagued the crew, so a full-stopper followed. Corrective action for the third incident entailed repairing a "B" nut and adapter.

No one had detected the leak during preflight, but crew members in this particular unit are looking more closely now.

Qs

Unmanaged Fuel

A four engine charter transport leveled off at low altitude for a short flight home after dropping off its passengers. About 40 miles out, the power on one engine began fluctuating. This was followed by power loss and surging r.p.m. on the other three reciprocating engines. Noting the fuel flow gages fluctuating, the flight engineer opened all crossfeed valves and turned on all fuel boost pumps. Attempting to maintain flying speed with a 300 f.p.m. rate of descent, the captain realized that he could not make a nearby runway. So, he decided to land wheels-up in an open field. The big aircraft skidded to a stop in the field. There was major damage to the fuselage and engines.

The dip stick showed what had started the problems — five of the six fuel tanks were almost dry. But although fuel was low, the investigating board determined there was enough to reach the plane's destination had the crew managed it correctly. A faulty circuit breaker had prevented one of the tank boost pumps from operating, so when the engineer turned on all other pumps and opened the crossfeed valves, fuel that should have fed the engines was forced into the tank containing the faulty pump, thus starving the engines.

This crew learned that without proper fuel management, the hungry engines may just cough a few times and turn real sick in a hurry.

Touchdown, Wheels Up

Following a series of approaches and landings the T-29 instructor pilot simulated complete hydraulic failure. The student pilot directed "hydraulic system bypass up" and called for the hydraulic failure checklist.

Slowing the aircraft to landing gear free-fall speed, he directed the IP to lower the landing gear handle to mechanically release the gear uplocks. The IP reported that he was leaving the gear handle in the up position to simulate broken mechanical linkage between the gear handle and the uplocks. With the gear and the hydraulic system bypass handles both in the up position, the pilot discharged the emergency air bottle, releasing the locks. The gear came down and the indicators showed "wheels down."

Prior to landing, the IP placed the hydraulic bypass handle down to insure the availability of hydraulic pressure during landing. As the aircraft touched down, the gear folded up. The plane scraped to a stop with the propellers beating into the runway surface. The crew egressed to safety and watched as the fire department extinguished a small oil fire on one engine.

Landing with the gear handle up on any bird is dangerous business. But landing with the gear handle up and the hydraulic system bypass handle down on a properly operating T-29 is particularly hard on sheet metal and props.

after deadline . . .

TAXI ACCIDENTS -- Recent MAC taxi accidents again point out that the potential to bend a wingtip is ever present. Taxiways improperly marked for the "heavies," ground equipment parked adjacent to taxi routes, improper marshalling procedures, and careless aircraft control are a few of the contributing factors for accidents. Periods of darkness or reduced visibilities during inclement weather are particularly vulnerable times. Vigilance on the part of flight crews and ground crews is essential for preventing further incidents. Well disciplined operators can prevent needless damage to equipment and injury to personnel. Follow the "twenty-five, ten, or stop" rule and avoid "getting a wingtip."

FUEL CAP GOES SAILING -- Dropped objects from aircraft pose danger to personnel below. And sometimes, they cause trouble for flight crews. In one case, a fuel cap came off a small jet on takeoff, flew back into a rear mounted engine, and caused engine shutdown. Fuel caps removed for refueling can be accidentally left unsecured by the refueling technician. So it behooves the flight crews to inspect their aircraft well before engine start. An engine chewing itself up with FOD vividly reminds crews to check safety of flight items, but it may be too late once the bird gets airborne.

NEXT MONTH -- Feature Articles next month include:

* Conference Skyhook -- How the crew in need, airborne or on the ground, can call on the experts with the answers.

* Checkitis -- One crew member recalls what the checkride means to him, the importance of being prepared and staying alert.

* I Couldn't Care Less -- The relationship between fatigue and complacency.

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Touch and Go